

Methods of Treating Obesity Using A Neurotensin Receptor Ligand

Cross-Reference to Related Invention

9/25/03
CSN

This application claims priority of U.S. provisional application number

5 60/199,951, filed April 27, 2000.

now abandoned
Field of the Invention

The present invention relates to methods of treating obesity, diabetes, sexual dysfunction (including erectile dysfunction), atherosclerosis, insulin resistance, impaired glucose tolerance, hypercholesterolemia, or hypertriglyceridemia using a

10 compound that is a neurotensin receptor ligand. The present invention also relates to compositions and kits that comprise a neurotensin receptor ligand.

Background of the Invention

Obesity is a devastating disease. In addition to harming physical health,

15 obesity can wreak havoc on mental health because obesity affects self-esteem, which ultimately can affect a person's ability to interact socially with others. Unfortunately, obesity is not well understood, and societal stereotypes and presumptions regarding obesity only tend to exacerbate the psychological effects of the disease. Because of the impact of obesity on individuals and society, much effort

20 has been expended to find ways to treat obesity, but little success has been achieved in the long-term treatment and/or prevention of obesity.

Neurotensin is a thirteen amino acid peptide that appears to have functions as a neurotransmitter and neuromodulator in the nervous system and as a local hormone in the periphery. Specifically, neurotensin is a neuromodulator of dopamine

25 transmission and of anterior pituitary hormone secretion, and exerts potent hypothermic and analgesic effects in the brain. In the periphery, neurotensin is a paracrine and endocrine modulator of the digestive tract and acts as a growth factor on a variety of cells.

So far, three types of neurotensin receptors have been identified:

30 neurotensin-1 receptors, neurotensin-2 receptors, and neurotensin-3 receptors. (The neurotensin-3 receptor is also called sortilin or gp95.) The neurotensin-1 and neurotensin-2 receptors are G protein coupled receptors; the neurotensin-3 receptor is not a G protein coupled receptor.